

LIBRARY

BOROUGH OF WIDNES



# Annual Report

of the

MEDICAL OFFICER OF HEALTH

for **1946**



BOROUGH OF WIDNES

---

# ANNUAL REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

### 1946

---

TO THE CHAIRMEN AND MEMBERS OF THE HEALTH AND  
THE MATERNITY AND CHILD WELFARE COMMITTEES

Ladies and Gentlemen,

I have the honour to present to you my Annual Report, which deals with the Vital Statistics and Sanitary Administration of the Borough of Widnes for the year 1946. In accordance with the instructions of the Minister of Health, the report will be an "ordinary report," and is therefore but a brief summary of the Health and Sanitation of the district.

The following are the chief statistical data :—

1. The estimated population increased from 42,030 in 1945 to 44,890 in 1946.
2. The birth rate increased from 21.5 per thousand in 1945 to 25.5 per thousand in 1946.
3. The death rate fell from 11.9 per thousand in 1945 to 11.3 per thousand in 1946.
4. The infant mortality rate fell from 80 in 1945 to 71 in 1946.
5. The maternal mortality rate fell from 4.31 in 1945 to 1.68 in 1946.

I have placed the comparative vital statistics relating to the wards of the Borough in the wards as they existed prior to November. In future reports the data will be recorded in the new wards, but several years must elapse before reliable comparisons can be made.

The infant mortality, although lower than the average for the preceding five years, is still higher than it should be considering the maternity and child welfare services which have been provided. An additional ante-natal session was instituted during the year with a view to providing, not only increased ante-natal supervision, but to reducing the incidence of prematurity which is the chief cause of infant mortality. The maternity and child welfare services were fully extended and the ten day nurseries were transferred to the Education Authority.

The incidence of Diphtheria was next to the lowest on record and is the direct result of the immunisation of such a high percentage of the child population. Few towns have been able to secure such a high percentage and I desire to express my appreciation of the support I have received from the clergy, medical practitioners and teachers. A scheme for the re-immunisation of children was put into operation during the year.

Sixty-three permanent houses were completed by private builders and four by the Local Authority, in addition to 135 prefabricated dwellings. None of the 166 houses in course of erection on the Lowerhouse Lane Estate were completed during the year. The housing shortage, therefore, was not ameliorated to any appreciable extent. Preparations were completed for the building of houses on the Page Lane Estate and for the provision of other housing sites. Further, there are ample sites available for private enterprise. It was, therefore, confidently anticipated that rapid progress would be made in the provision of houses. Alas, however, the shortage of materials caused a curtailment of the housing programme and, at the same time, hampered the work of the Sanitary Department in securing the repair of property. The number of unfit houses will consequently increase, and it will be impossible to take action under the Housing Act with regard to them so long as there remains such an acute shortage of houses. It is to be hoped that restrictions relative to house building will only be temporary. The letting of houses was transferred to the Borough Treasurer but, notwithstanding the existence of a "points scheme," this task has been an unenviable one.

It was decided during the year to appoint an additional sanitary inspector in order to carry out more effectively the provisions of the Food and Drugs Act, the more frequent inspection of houses and the supervision of factories relative to the emission of black smoke.

The work of the rodent operatives continued during the year in accordance with the scheme of the Minister of Food.

I desire to take this opportunity of thanking the chief officials of the Corporation and those members of the municipal staff who have unstintingly assisted me during a difficult period.

I wish also to acknowledge my appreciation of the cordial support afforded me by the members of the Health and Maternity and Child Welfare Committees and the Council.

I am,

Your obedient Servant,

ALBERT JONES,

Medical Officer of Health.



## GENERAL STATISTICS

---

Area of Borough in acres	...	...	...	...	...	6,178
Population at Census, 1931	...	...	...	...	...	40,619
„ Estimated 1946	...	...	...	...	...	44,890
Density of Population ( <i>i.e.</i> , No. of persons per acre)	...	...	...	...	...	7.2
No. of Inhabited Houses (1931 Census)	...	...	...	...	...	8,641
Rateable Value	...	...	...	...	...	£226,663
Sum represented by 1d. Rate	...	...	...	...	...	£878

---

## EXTRACTS FROM VITAL STATISTICS OF THE YEAR

---

Number of Births: Males 591, Females 554	...	...	...	...	1,145
Birth-rate per 1,000 of the Population	...	...	...	...	25.5
Number of Deaths: Males 276, Females 234	...	...	...	...	510
Death-rate per 1,000 of the Population	...	...	...	...	11.3
Excess of Births over Deaths	...	...	...	...	635
Number of Deaths of Infants (under the age of one year)	...	...	...	...	82
Infantile Mortality per 1,000 Births	...	...	...	...	71
Deaths from Influenza	...	...	...	...	13
Death-rate from Influenza per 1,000 of the Population	...	...	...	...	0.29
Death-rate from Cancer	...	...	...	...	1.47
Death-rate from Phthisis	...	...	...	...	0.49
Maternal Mortality Rate per 1,000 Births	...	...	...	...	1.68
Number of women dying in consequence of child birth—	...	...	...	...	
From Sepsis	...	...	...	...	1
Other Causes	...	...	...	...	1
Deaths from Measles (all ages)	...	...	...	...	0
„ „ Whooping Cough (all ages)	...	...	...	...	2
„ „ Diarrhoea (under 2 years of age)	...	...	...	...	25
Percentage of total Deaths occurring in Public Institutions	...	...	...	...	46.6

## ANALYSIS OF VITAL STATISTICS

## POPULATION—

The population returns since 1861 are given below :—

Year	Population	Inhabited houses	Average per house
1861	6,893	1,150	5.99
1871	14,359	2,519	5.66
1881	24,918	4,994	5.0
1891	30,011	5,121	5.86
1901	28,580	5,350	5.34
1911	31,544	6,102	5.16
1921	38,879	7,437	5.22
1931	40,619	8,534	4.63

The Registrar-General's estimate of the population for the year 1946 was 44,890. There is, therefore, an increase of 2,860 over the estimated population for 1945. The figure for the year 1946 is, in my view, the most correct estimate which has been provided for many years.

## BIRTHS—

	Total	Males	Females	
Legitimate ... ..	1,065	551	514	} Birth Rate (R.G.) 25.5
Illegitimate ... ..	80	40	40	
Birth-rate for England and Wales	...	...	...	19.1

The following tables gives the number of births registered in the Borough, and indicates the wards in which they occurred :

WARD	Males	Females	Total	No. of Births which were illegitimate	Birth-rate per 1,000 estimated population
Farnworth ...	108	92	200	4	19.2
Halton .....	101	84	185	12	29.3
Simm's Cross .	96	129	225	13	23.9
Victoria .....	102	93	195	22	29.2
Waterloo .....	39	39	78	7	25.4
West Bank .....	36	28	64	9	20.6
Ditton .....	109	89	198	13	33.3
—	—	—	—	—	—
Whole Borough	591	554	1145	80	25.5

## ILLEGITIMATE BIRTHS—

The percentage of births, which were illegitimate, during each of the past 14 years is as follows :—

1933 .....	2.0 per cent.	1940 .....	4.7 per cent.
1934 .....	3.0 per cent.	1941 .....	4.1 per cent.
1935 .....	2.9 per cent.	1942 .....	5.2 per cent.
1936 .....	2.5 per cent.	1943 .....	6.0 per cent.
1937 .....	3.1 per cent.	1944 .....	5.6 per cent.
1938 .....	2.4 per cent.	1945 .....	9.8 per cent.
1939 .....	2.4 per cent.	1946 .....	7.0 per cent.

## CAUSES OF, AND AGES AT, DEATH DURING YEAR 1946—

CAUSES OF DEATH	All Ages	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and over	Total
All Causes—Certified ... ..	496	79	5	8	10	10	43	132	209	
„ —Uncertified ... ..	14	3	—	—	—	—	3	3	5	
Typhoid and Paratyphoid Fever ... ..	—	—	—	—	—	—	—	—	—	
Measles ... ..	—	—	—	—	—	—	—	—	—	
Scarlet Fever ... ..	—	—	—	—	—	—	—	—	—	
Whooping Cough ... ..	2	2	—	—	—	—	—	—	—	
Diphtheria ... ..	—	—	—	—	—	—	—	—	—	
Influenza ... ..	13	1	—	—	—	1	1	4	6	
Encephalitis ... ..	—	—	—	—	—	—	—	—	—	
Cerebro-Spinal Fever ... ..	—	—	—	—	—	—	—	—	—	
Pulmonary Tuberculosis ... ..	22	—	—	—	—	2	6	13	1	
Other Tuberculous diseases ... ..	4	—	—	2	—	—	—	1	1	
Syphilis ... ..	1	—	—	—	—	—	—	1	—	
Cancer, malignant disease ... ..	66	—	—	—	1	—	6	25	34	
Diabetes ... ..	3	—	—	—	—	1	—	—	2	
Cerebral Haemorrhage, etc. ... ..	46	—	—	—	—	—	1	16	29	
Heart Disease ... ..	100	—	—	—	2	—	10	29	59	
Other Circulatory diseases ... ..	12	—	—	—	—	1	—	2	9	
Bronchitis ... ..	30	3	—	—	—	—	—	12	15	
Pneumonia (all forms) ... ..	32	6	4	2	2	1	4	6	7	
Other Respiratory diseases ... ..	8	—	—	—	—	—	2	4	2	
Peptic Ulcer ... ..	4	—	—	—	—	—	—	2	2	
Diarrhoea, etc., under 2 yrs. ... ..	25	24	1	—	—	—	—	—	—	
Appendicitis ... ..	1	—	—	—	1	—	—	—	—	
Other Digestive diseases ... ..	14	1	—	—	—	—	3	8	2	
Acute and Chronic Nephritis ... ..	6	—	—	—	—	—	3	2	1	
Puerperal Sepsis ... ..	1	—	—	—	—	—	1	—	—	
Other Puerperal causes ... ..	1	—	—	—	—	—	1	—	—	
Congenital Debility, Premature Birth, Malformations, etc. ... ..	44	42	—	1	1	—	—	—	—	
Suicide ... ..	4	—	—	—	—	—	1	2	1	
Road Traffic Accidents ... ..	6	—	—	1	—	1	1	2	1	
Other violence ... ..	12	2	—	1	1	3	2	—	3	
All other causes ... ..	53	1	—	1	2	—	4	6	39	
TOTALS ... ..	510	82	5	8	10	10	46	135	214	

The following is a summary of the deaths of persons belonging to Widnes, which occurred in institutions during the year 1946 :—

Widnes Accident Hospital	...	...	...	8
„ Isolation Hospital	...	...	...	—
„ Maternity Home (Infants—1)	...	...	...	1
Liverpool Northern Hospital	...	...	...	2
„ Children's Infirmary (Infants—0)	...	...	...	—
„ Royal Infirmary	...	...	...	3
„ Southern Hospital	...	...	...	3
„ Public Assistance Hospitals	...	...	...	—
„ Maternity Hospital (Infants—1)	...	...	...	1
„ Babies Hospital (Infants—2)	...	...	...	2
„ Cancer Hospital	...	...	...	—
„ Women's Hospital	...	...	...	1
„ St. Vincent's Hospital	...	...	...	3
County Mental	...	...	...	12
„ Sanatoria	...	...	...	2
Warrington Infirmary	...	...	...	—
Other Hospitals	...	...	...	3
Whiston Infirmary (Infants 45)	...	...	...	156
„ Institution	...	...	...	41
TOTAL	...	...	...	238

The following table summarises the Vital Statistics of the Borough :—

	Per 1,000 of Population			Per 1,000 Births		
	Birth Rate	Death Rate	Death Rate from Tuberculosis of Respiratory System	Death Rate from Cancer	Maternal Rate of Mortality	Rate of Deaths under 1 year
Mean of 5 years—						
1941-1945	22.0	12.4	0.67	1.79	1.91	74
Year—						
1946	25.5	11.3	0.49	1.47	1.68	71
1945	21.5	11.9	0.64	2.18	4.31	80
Increase or Decrease in 1946 on Five Years'						
Average	+3.5	—1.1	—0.18	—0.32	—0.23	—3
1941-1945						
Previous year	+4	—0.6	—0.15	—0.71	—2.63	—9



## MORTALITY FROM ALL CAUSES—

The following table shows the distribution of deaths in the various Wards of the Borough :—

WARD.	Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	Over 65	Total
Farnworth ...	10	—	2	1	2	7	36	58	116
Halton ... ..	16	1	2	—	1	8	13	27	68
Simm's Cross	10	—	—	5	1	7	22	49	94
Victoria ... ..	19	—	2	—	3	8	27	28	87
Waterloo ...	3	3	1	1	2	4	8	18	40
West Bank ...	9	—	—	—	1	5	8	11	34
Ditton ... ..	15	1	1	3	—	7	21	23	71
TOTALS ...	82	5	8	10	10	46	135	214	510

The general death rate was 11.3 per thousand, as compared with 12.4 for the preceding five-year period. The death rate for England and Wales was 11.5.

The following table gives the general death rates in the various Wards during the past 25 years.

YEARS	Farnworth	Halton	Simm's Cross	Victoria	Waterloo	West Bank	Ditton	Whole Borough
1922-1926 ...	10.2	12.1	12.0	15.2	15.8	13.0	13.4	13.3
1927-1931 ...	10.1	12.9	11.3	14.6	16.7	11.5	10.3	12.6
1932-1936 ...	10.5	11.6	11.5	12.8	15.7	12.6	11.5	12.0
1937-1941 ...	11.2	13.0	12.2	14.3	16.3	13.5	13.9	13.1
1942-1946 ...	11.5	11.5	10.7	13.3	12.0	12.7	13.2	11.9
1922-1946 ...	10.7	12.2	11.5	14.0	15.5	12.6	12.5	12.6

# INFANTILE MORTALITY

The causes of Deaths of Infants during 1946 are recorded in the following table :—

CAUSE OF DEATH	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 4 Weeks	4 Weeks and under 3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under 1 Year
All Classes—Certified ...	30	4	3	4	41	22	11	3	2	79
„ —Uncertified .	—	—	—	—	—	—	3	—	—	3
Whooping Cough ...	—	—	—	—	—	1	—	—	1	2
Measles ...	—	—	—	—	—	—	—	—	—	—
Syphilis ...	—	—	—	—	—	—	—	—	—	—
Influenza ...	—	—	—	—	—	—	1	—	—	1
Bronchitis ...	—	—	—	—	—	3	—	—	—	3
Pneumonia (all forms) ...	—	—	—	—	—	4	1	1	—	6
Tuberculosis ...	—	—	—	—	—	—	—	—	—	—
Enteritis and Diarrhoea .	—	1	2	2	5	10	6	2	1	24
Digestive Diseases ...	—	—	—	—	—	—	1	—	—	1
Other Congenital Causes	10	—	1	2	13	2	2	—	—	17
Premature Birth ...	20	3	—	—	23	2	—	—	—	25
Violence ...	—	—	—	—	—	—	2	—	—	2
Other Causes ...	—	—	—	—	—	—	1	—	—	1
TOTALS ...	30	4	3	4	41	22	14	3	2	82

The following table gives the Infant Mortality per 1,000 Births in the Wards of the Borough :—

YEARS	Farn-worth	Hal-ton	Simm's Cross	Vic-toria	Water loo	West Bank	Dit-ton	Bor-rough
1922-1926 .....	50	90	77	92	115	98	82	85
1927-1931 .....	45	82	74	84	90	76	62	74
1932-1936 .....	55	66	67	91	105	68	56	72
1937-1941 .....	58	87	80	98	105	91	81	84
1942-1946 .....	50	78	56	83	80	103	69	70
1922-1946 .....	52	80	70	90	100	87	70	77

It will be seen from the Tables that the number of deaths of children under 1 year of age was 82, which represents an Infantile Mortality rate of 71 per 1,000 births as compared with the rate of 74 for the preceding five-year period. The Infantile Mortality rate for England and Wales was 43 per 1,000 births.

It has always been emphasised that statistics relating solely to one year for a town of the size of Widnes should not be used for purposes of comparison. A period covering at least five years is the minimum from which any deductions can be made. The following Table will, therefore, afford a useful basis for comparison :—

### ANALYSIS OF CAUSES OF INFANTILE MORTALITY IN SUCCESSIVE QUINQUENNIA 1907-1946

Death Rates per 1,000 Births

Years	Total deaths under 1 yr. of age	Infectious dis- eases (ex- cluding T.B.)	Tuber- cular dis- eases	Ner- vous dis- eases	Res- pir- atory dis- eases	Digestive diseases (including Diarr- hoea)	Malfor- mations Prema- ture Births, Maras- mus etc.	Other causes
1907-1911 ...	142	7.9	3.7	14.2	19.3	45.6	46.8	4.7
1912-1916 ...	125	11.6	1.4	12.8	24.0	26.1	43.5	5.6
1917-1921 ...	103	9.2	0.2	8.2	17.0	23.2	40.3	5.5
1922-1926 ...	85	8.8	0.2	7.5	19.0	13.0	30.7	5.9
1927-1931 ...	74	5.7	0.45	3.6	18.7	7.3	33.5	4.1
1932-1936 ...	72	3.1	0.95	6.0	12.7	6.2	38.0	4.5
1937-1941 ...	84	4.7	1.1	2.12	17.1	11.1	42.6	4.9
1942-1946 ...	70	3.7	0.2	2.5	12.4	16.6	30.4	3.1

The chief points which the Tables illustrate may be summarised as follows :—

1. The Infantile Mortality rate steadily declined until the end of 1936 when it rapidly rose. It has, however, declined during the last five-year period.
2. The Infantile Mortality rate has, generally speaking, been satisfactory in the Farnworth Ward during the past 25 years.
3. The chief causes of Infantile Mortality are prematurity, and other congenital conditions, the majority of such deaths occurring during the first week of life.
4. The mortality from digestive diseases declined rapidly until 1936 since when there has been a steady increase.



During the year 1945 the weight of every child at birth was reported on the notification card and infants weighing 5½ lbs. or less are regarded as being prematurely born. This was the first year during which the Minister of Health required this information and the figures for the past two years are as follows :—

PLACE OF BIRTH	Percentage of Premature Infants		Percentage of Premature Infants which died	
	1945	1946	1945	1946
Home ... ..	8	5	29	30
Maternity Home ... ..	5	8	—	21
County Hospital, Whiston	7	11	43	65
Other Hospitals ... ..	8	10	100	100

During the year 1946, 7% of the total births were premature as compared with 7.8% during 1945. It is realised that prematurity is due to conditions occurring prior to birth and, with a view to its prevention, two ante-natal sessions were instituted during the year, and the closest co-operation was secured with the staff of the County Hospital. Time will prove whether this increased ante-natal supervision will produce a reduction in the percentage of premature births. Unfortunately, many women are still unwilling to avail themselves of the facilities afforded by the Ante-Natal Clinic. It will, however, be possible to state in the next report whether the incidence of prematurity is greater among those mothers who refused to attend the Ante-Natal Clinic.

The figures again show that the mortality rate among premature infants is greater in the case of those born in hospital. This is largely due to the fact that the hospital staffs are inadequate to give the time which is necessary in endeavouring to save the lives of such infants. Hot-water bottles and other necessities are issued to midwives for the use of premature babies born at home; such infants are very frequently visited and the help of relatives is secured.

It will be seen from the Table which summarises the causes of Infantile Mortality that gastro-enteritis was responsible for the death of a large number of infants during the years 1905 to 1919. A substantial reduction in the mortality from this disease after that period resulted from the abolition of the privy midden system and the general improvement in outdoor sanitation. The increase in the number of deaths during recent years from gastro-enteritis is very discouraging. This disease invariably occurs in infants who are artificially fed and there is no doubt that during the past ten years there has been a marked reduction in the percentage of breast-fed infants. Breast feeding not only provides



better digestion and nutrition but gives almost perfect protection against infection. Many infants are bottle fed solely on the grounds of convenience. Every effort is made to encourage the practice of breast feeding, particularly in homes where housing conditions and domestic hygiene multiply the risks of infection. There is no doubt that the standard of domestic hygiene in many homes is low.

In order to provide the best treatment for infants suffering from this and other diseases, the County Authority appointed a pediatrician to the staff of the County Hospital.

The Ward distribution of the deaths under 2 years of age from diarrhoea and enteritis was as follows :—

Farnworth	...	...	4	Waterloo	...	...	...	1
Halton	...	...	5	West Bank	...	...	...	2
Simms Cross	...	...	2	Ditton	...	...	...	5
Victoria	...	...	6					

#### *PROFESSIONAL NURSING IN THE HOME—*

The arrangements made with the Widnes Queen's Nursing Association for the home nursing of children suffering from measles and whooping-cough have operated normally.

#### *MIDWIFERY—*

The number of midwives practising in the area was 9.

#### *HOME HELPS—*

A Home Help Scheme was put into operation in January, 1946. The scheme provides domestic assistance in the homes of women during their confinement and is available to all who make application irrespective of the financial circumstances of the applicant. Three home helps are on the register, one available for whole-time employment and two for part-time work. All applications for assistance have been met and the number of cases dealt with during the year was 15.

#### *DOMESTIC HELPS—*

The Domestic Help Scheme which commenced in February, 1945, provides domestic assistance in the homes of people who are sick or infirm, whether through old age or otherwise. The helps are employed by the Local Authority and all applications for the services of a Domestic Help are made to the Health Department. Part-time or full-time help is allotted according to the needs of the household. Since the inception of the scheme, 57 cases have received assistance. The number of domestic helps on the register at the end of the year was 10.

*LABORATORY FACILITIES—**Bacteriological Examinations—*

The number of specimens examined in 1946 was :—

Nasal swabs	...	...	58	Others	...	...	...	3
Throat swabs	...	...	215					

The number of Bacteriological Examinations carried out in 1945 was 360.

*HOSPITALS—*

(a) The number of patients admitted to the Isolation Hospital during 1946 was 219 as compared with 301 during 1945. Eleven of the patients were admitted from the Whiston Rural District. The cases admitted during the year consisted of 169 cases of Scarlet Fever, 14 cases of Diphtheria, 9 cases of Measles, 1 case of Whooping Cough, 13 cases of suspected Diphtheria, and 13 Diphtheria carriers. There was one death in the hospital during the year from Diphtheria, but the patient did not belong to Widnes.

(b) A summary of the cases treated at the Accident Hospital during 1946 was :—

Admitted during 1946	...	...	...	...	145
Out-Patients, during 1946	...	...	...	...	2,150
Re-Visits, Out-Patients during 1946	...	...	...	...	10,256
Operations	...	...	...	...	150
X-Ray Examinations	...	...	...	...	1,430
Deaths	...	...	...	...	8

The cases treated in 1945 were: Admissions 159; out-patients 2146; and operations 132.

*MATERNITY HOME—*

The total number of cases admitted to the Home during the year was 302 as compared with 261 during 1945. Of the cases admitted during the year, 181 were residents of the Borough.

*AMBULANCE FACILITIES—*

The Local Authority has provided one motor ambulance for the removal of cases of infectious disease to hospital, two for the removal of patients to hospitals within or without the Borough and one for emergencies. The three latter ambulances are stationed at the Health Centre during the day and all enquiries for an ambulance are dealt with by a member of the staff. In order to simplify the procedure for obtaining an ambulance after office hours, an ambulance depot was established on the first floor of the Mill Brow Clinic, where all enquiries for an ambulance are dealt with by one of the ambulance drivers. A card setting out the details for obtaining an ambulance was issued to

the Police, works, shops, schools, hospitals, doctors and midwives, etc., in the Borough.

The amount of work carried out by the ambulance department during the day-time is such that three drivers are required to be on duty. Experience has shown that the majority of emergency calls occur in the day-time, and, in addition, a large number of patients who are unable to walk or travel by bus are conveyed to and from the out-patient departments of the various Liverpool hospitals, the Whiston County Hospital and the Widnes Accident Hospital. In 1946 the number of journeys made to hospitals both in and out of the Borough was 832 during office hours as compared with 130 during the evening, night and week-end. The total mileage during the year was 17,983 as compared with 12,986 during 1945.

#### *CLINICS AND TREATMENT CENTRES—*

The Child Welfare and School Clinics functioned normally during the year.

The record of home visits paid by the health visitors during the year was :—

To Expectant Mothers:	First Visits	321	Total Visits	646
Infants under 1:	„ „	1,152	„ „	4,317
Children 1 - 5:	„ „	—	„ „	4,828

An Ante-Natal Clinic is conducted by Mr. P. Malpas every Tuesday and Friday afternoons. The specialist voluntarily conducts an ante-natal clinic at the Maternity Home immediately he has finished his sessions at the Health Centre. The number of ante-natal cases which attended the clinics was 1,155, as compared with 836 during 1945, and 885 during 1944. The total attendances during the year were 3,765 as compared with 2,528 during 1945.

It was found necessary to arrange for 11 cases to be admitted to the Liverpool Maternity Hospital during the year. because of disabilities or defects discovered at the clinic. The number of cases admitted during 1945 was 9. In addition 329 cases were admitted to the Whiston County Hospital, as compared with 238 during 1945 and 207 during 1944. It will be seen, therefore, that the County Hospital is being extensively used for maternity cases. Since the year 1937, when the number was 24, there has been an annual increase in the number of cases admitted. During the year 1946, 48% of the total births occurred in institutions, as compared with 42% during 1945.

From its inception the work at the clinic has not been confined to ante-natal supervision. Patients suffering from disabilities which are the result of childbirth, or from other diseases peculiar to women, are examined, and where necessary are admitted either to the Women's Hospital, Liverpool, or to the



County Hospital for operative treatment. 158 such cases were examined during the year 1946. The services of the specialist are also at the disposal of the medical practitioners for cases of difficult labour and puerperal disorders, and full advantage is taken of this provision.

A scheme for the examination and treatment of crippled children was put into operation in January, 1926. The Orthopaedic surgeon visits Widnes fortnightly to direct the necessary treatment. Children requiring operative treatment are admitted to the Children's Infirmary at Liverpool, the country hospital at Heswall, or the Widnes Accident Hospital.

*TUBERCULOSIS DISPENSARY—Chapel Street—*

This is provided by the County Authority, and the Tuberculosis Officer attends on Monday mornings, Wednesday evenings, and Friday afternoons.

The Mass Radiography Unit possessed by the County Authority was only available for a limited number of Widnes residents during 1945. Several Units with the requisite trained staff will be needed for use in the Administrative County if a satisfactory scheme for the early detection of Pulmonary Tuberculosis is to be instituted.

**PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASE**

**(i) NOTIFIABLE DISEASES DURING THE YEAR—**

DISEASE				Total cases notified	Cases admitted to Hospital	Total Deaths
Diphtheria	...	...	...	19	18	—
Scarlet Fever	...	...	...	240	172	—
Dysentery	...	...	...	—	—	—
Puerperal Pyrexia	...	...	...	2	2	1
Malaria	...	...	...	—	—	—
Pneumonia	...	...	...	54	—	32
Erysipelas	...	...	...	9	—	—
Ophthalmia Neonatorum	...	...	...	4	3	—
Enteric Fever	...	...	...	1	1	—
Cerebro-spinal Fever	...	...	...	4	4	—
Measles	...	...	...	29	—	—
Whooping Cough	...	...	...	138	—	2
Infantile Paralysis	...	...	...	5	5	—
Tuberculosis—						
(a) Pulmonary	...	M	.....	26	—	15
		F	.....	24	—	7
		Total	...	50	—	22
(b) Non-Pulmonary	...	M	.....	7	—	3
		F	.....	11	—	1
		Total	...	18	—	4



## (ii) ANALYSIS OF NOTIFIABLE DISEASES IN AGE GROUPS—

DISEASE	Total Cases at all Ages	CASES NOTIFIED											
		Years											
		Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over
Diphtheria .	19	1	2	1	2	4	2	1	1	5	—	—	—
Scarlet													
Fever	240	1	8	11	20	23	96	57	14	7	3	—	—
Measles ...	29	5	5	5	5	—	9	—	—	—	—	—	—
Whooping													
Cough	138	21	26	20	27	24	17	1	—	2	—	—	—
Cerebro-Spinal													
Fever	4	—	—	1	—	—	—	2	1	—	—	—	—
Para-typhoid .	1	—	—	—	—	—	—	1	—	—	—	—	—
Pneumonia .	54	1	—	2	2	1	9	4	3	11	9	10	2
Erysipelas .	9	—	—	—	—	—	—	—	—	3	3	2	1
Ophthalmia	4	4	—	—	—	—	—	—	—	—	—	—	—
Puerperal													
Pyrexia	2	—	—	—	—	—	—	—	—	2	—	—	—
Poliomyelitis	5	—	3	—	1	—	1	—	—	—	—	—	—
Pulmonary T.B.													
M.	26	—	—	—	—	—	—	—	3	13	1	8	1
F.	24	—	—	—	—	—	1	—	7	9	5	2	—
Non-Pulmonary													
T.B.													
M.	7	—	—	1	—	1	3	—	1	—	—	1	—
F.	11	—	1	—	—	—	1	2	2	3	1	1	—
TOTALS ...	573	33	45	41	57	53	139	68	32	55	22	24	4

OPHTHALMIA NEONATORUM.—Four cases were notified during the year, three of which were admitted to hospital. The remaining case received treatment at home. No injury to vision resulted among any of the cases.

## SCARLET FEVER—

The number of cases of Scarlet Fever notified during the preceding four years was: 1942—261; 1943—463; 1944—241; 1945—289. There were no deaths from this disease during the year.

*DIPHTHERIA—*

The following Table gives the incidence of this disease during the past 10 years :—

Year	No. of Cases	No. of Deaths	Year	No. of Cases	No. of Deaths
1937	87	2	1942	95	4
1938	240	6	1943	30	2
1939	180	3	1944	23	0
1940	200	6	1945	14	0
1941	160	9	1946	19	0

None of the fatal cases recorded in the above Table had been immunised.

Of the 19 cases which occurred during the year, 14 had not been immunised. During the preceeding 2 years, 75% of the cases of Diphtheria occurred among unimmunised persons. In the comparatively few cases of Diphtheria which occurred among children who had been immunised the disease was of a very mild character. The rare occurrence of the disease and the complete absence of mortality among immunised children should convince every parent as to the value of immunisation. It is of interest to note that during the past 3 years more than 30% of the cases of Diphtheria occurred among persons over 15 years of age. This disease in former years was almost entirely confined to children under that age.

A scheme providing free immunisation against Diphtheria was put into operation in January, 1941, and the percentage of children immunised between the ages of 1 and 4 years inclusive is 90 and that of children attending school is 98. A great deal of effort has been needed to secure such an excellent response. The number of parents who persistently refuse to have their children immunised is very small, but it is a matter for regret that many postpone immunisation until the children are of school age.

The number of children immunised during the past six years is as follows :—

Date of Birth	1941	1942	1943	1944	1945	1946	Total
1927 to 1931	2524	105	350	5	1	—	2985
1932	505	27	182	3	5	—	722
1933	490	48	170	7	3	3	721
1934	506	62	173	5	5	2	753
1935	454	99	225	10	5	5	798
1936	328	176	238	16	7	7	772
1937	270	269	241	13	12	7	812
1938	287	316	201	39	18	9	870
1939	236	301	169	77	52	13	848
1940	107	411	218	80	45	26	887
1941	—	367	298	101	39	62	867
1942	—	—	393	258	60	46	757
1943	—	—	—	437	263	92	792
1944	—	—	—	—	575	270	845
1945	—	—	—	—	—	473	473
1946	—	—	—	—	—	1	1
TOTALS	5707	2181	2858	1051	1090	1016	13,903

It has been established that when children are immunised at an early age the immunity to some extent diminished as they grow older and parents are advised to consent to their children receiving one further dose of the immunising agent when they attain the age of 5 years. It is confidently anticipated that this re-inforcing dose will create a life-long immunity. The number of children who were re-immunised during 1946 was 3,720.

It will be remembered that in the Autumn of 1945 there was a threatened outbreak of Diphtheria in an institution accommodating 155 boys. There were 60 unimmunised children in the institution at the time, but, owing to the prompt and active measures taken, only one other boy contracted the disease from the original fatal case. Assurances were subsequently given that all new admissions to the institution would be immunised. This, however, was not carried out and in the autumn of 1946 a child aged 4 was notified to be suffering from Diphtheria. He was promptly removed to the Isolation Hospital, but died within a few hours. As a result of visits to the institution four other cases were discovered. All the affected children were under 6 years of age, had not been immunised and slept in close proximity to each other. It is hoped that as a result of this outbreak, the immunisation of all new entrants will be strictly observed.

**TUBERCULOSIS.** The number of cases of Tuberculosis and of all deaths from the disease during 1946 will be found in the following table :—

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
Years								
0-1	—	—	—	—	—	—	—	—
1-5	—	—	2	1	—	—	2	—
5-10	—	1	3	1	—	—	—	—
10-15	—	—	—	2	—	—	—	—
15-20	3	7	1	2	—	1	—	—
20-25	3	3	—	1	—	1	—	—
25-35	10	6	—	2	1	2	—	—
35-45	1	5	—	1	2	1	—	—
45-55	5	1	—	1	3	2	—	—
55-65	3	1	1	—	8	—	1	—
65 - upwards	1	—	—	—	1	—	—	1
TOTALS	26	24	7	11	15	7	3	1
	50		18		22		4	



The following Table gives the incidence of Tuberculosis during the past 30 years :—

Annual Average	Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis	
	Case rate per 1,000 of population	Death rate per 1,000 of population	Case rate per 1,000 of population	Death rate per 1,000 of population
1917/1921 ...	1.84	1.18	1.1	0.27
1922/1926 ...	1.65	0.98	1.3	0.2
1927/1931 ...	1.5	0.93	1.0	0.18
1932/1936 ...	1.02	0.7	0.78	0.22
1937/1941 ...	0.86	0.66	0.55	0.15
1942/1946 ...	0.98	0.64	0.52	0.1

It will be observed that the incidence and the death rates from Pulmonary Tuberculosis steadily declined from 1917 to 1941 and that they have increased since. The latter circumstance has occurred throughout the country and is not surprising. A further diminution cannot be expected until overcrowding is abated and insanitary dwellings are demolished.

It will be seen that the incidence and the death rates from Non-Pulmonary Tuberculosis have also steadily declined. This disease is mainly caused by the consumption of infected milk. The pasteurisation of milk is, therefore, the chief means of prevention. A new pasteurising plant was completed during the year and the bulk of the milk supply in the Borough is now pasteurised. Application was made under Defence Regulation 55G for Widnes to be designated a Specified Area but it was refused. It is, however, hoped that within a reasonable time the whole of the milk supply will be either pasteurised or obtained from T.T. or accredited herds.

The following Table gives the death rates from Pulmonary Tuberculosis in the various wards during the past 25 years :—

Years	Farn- worth	Hal- ton	Simms Cross	Vic- toria	Water- loo	West Bank	Dit- ton
1922-1926 .....	0.7	0.6	1.0	1.2	1.4	0.7	0.8
1927-1931 .....	0.3	0.8	1.1	1.2	1.6	1.0	0.6
1932-1936 .....	0.5	0.4	0.8	1.1	1.1	0.6	0.6
1937-1941 .....	0.4	0.6	0.6	0.9	0.8	0.9	0.6
1942-1946 .....	0.5	0.4	0.5	1.0	0.7	0.9	0.5
1922-1946 .....	0.48	0.56	0.8	1.08	1.12	0.82	0.62



## SANITARY CIRCUMSTANCES OF THE AREA

## WATER SUPPLY—

The water supply of the Borough is obtained by pumping from deep wells in the sandstone. Three samples were analysed by the Public Analyst and 4 by the Bacteriologist to the City of Liverpool, and were found to be of excellent quality. The chlorination of water supplies was commenced in November, 1941.

With a view to augmenting the supply of water to the Borough, the possibility of utilising a source of water within reasonable access was considered. One sample was sent to the Public Analyst and five samples to the City Bacteriologist, but, owing to the adverse reports, it was decided to abandon the idea.

### CLOSET ACCOMMODATION—

There are 97 privy middens, but they are situated in the rural parts of the Borough, and cannot be converted owing to the absence of adequate sewers. Apart from the existence of a few waste water closets, the remaining houses are provided with fresh water closets.

REFUSE REMOVAL—

This work is carried out entirely by the Highway Committee, and motor transport is mainly used. There are 44 dry ashpits and 97 ashpits attached to privies. The remaining houses in the Borough are provided with portable bins, but it has been impossible to secure adequate supplies to replace defective ones.

SANITARY INSPECTION OF THE DISTRICT—

A record of the work of the Sanitary Department is as follows:—

Defects or Nuisances : No. Discovered	...	1,976
No. Abated	... ..	1,924
No. of Notices served : Informal	... ..	1,451
Statutory	... ..	291
No. of Legal Proceedings taken	... ..	1
No. of Premises visited	... ..	6,123

Premises kept under observation	Number of Premises	Number of Inspections
Factories, sanitary accommodation	126	241
Bakehouses ... ..	18	216
Slaughterhouses ... ..	1	1
Milkshops ... ..	62	248
Other Shops ... ..	—	432
Cowsheds ... ..	22	44
Common Lodginghouses ... ..	5	161
Visits to premises where cases of Infectious diseases have occurred	361	476
No. of premises disinfected after cases of Infectious Diseases ...	306	—
No. of articles disinfected by steam disinfector ... ..	6,733	—

*SMOKE ABATEMENT—*

Every effort was made to secure a reduction of atmospheric pollution due to the emission of black smoke from factories. During the year, 167 recorded observations of smoke emission from the various factory chimneys were made, each for a period of half an hour. On 74 occasions (44%) the emissions were excessive; this shows a slight reduction on the previous year's figures, when, out of a total of 152 recorded observations, 82, or 53%, showed excessive emission. Numerous interviews with factory managers took place but invariably they complained that the excessive emission of black smoke was due to the poor quality of fuel in use in the factories.

The Minister of Health was requested during 1945 to sanction the making of bye-laws relative to the emission of black smoke. This request was refused, however, and, after a meeting of representatives of the Corporation, Factory Managements, and the Chief Alkali Inspector held during 1946, the Minister decided that confirmation of the bye-laws be postponed for twelve months.

Further improvements at an electrical generating station to eliminate the emission of grit were carried out and only one complaint was received during the year.

*ERADICATION OF BED BUGS—*

65 houses belonging to the Local Authority and 20 private houses were treated during the year because of verminous infestation. This was carried out by an employee of the Local Authority and various insecticides were used including DDT and gammexane. The latter substances are proving to be very efficient.

In addition, 306 houses were disinfected by an employee of the Isolation Hospital. The steam disinfector at the latter institution was extensively used; the number of articles treated was 6,733 as compared with 8,312 during 1945.

*RODENT CONTROL—*

Three whole-time rodent operatives are employed by the Local Authority and the following is a summary of the work carried out during the year :—

Premises	Number Treated	Bait Applied (lbs.)	Poison Bait Applied (lbs.)	Estimated Des- truction	Bodies found
Sewers ... .. (man-holes)	2443	981	182	2491	96
Houses ... ..	139	117	35	340	49
Other Premises	52	362	105	2150	433



## INSPECTION AND SUPERVISION OF FOOD

*(a) MILK SUPPLY—*

The number of dairymen, other than cow-keepers, on the register is 33. One dealer's licence for the bottling of T.T. milk, one for the distribution of T.T. milk and three for the distribution of Pasteurised milk were issued. There are 22 dairy farms in the Borough. Mr. P. T. Lindsay, veterinary officer to the Ministry of Agriculture, carried out the inspection of the cows.

Sixteen samples of pasteurised milk were submitted for bacteriological examination and were found to be satisfactory. Forty-five samples of raw milk were examined bacteriologically and only 26 were found to be up to the standard for graded milk. Three samples of milk were examined for tubercle bacillus but were found to be negative.

*(b) ICE CREAM—*

An outbreak of enteric fever in Wales, attributable to the contamination of ice-cream, directed public attention to the purity of this commodity. The manufacture and sale of ice-cream in the Borough was very closely investigated. All the small makers, with one exception, use the cold mix. The largest manufacturer employs the hot method but he had been unable to obtain the necessary cooling apparatus and consequently the mixture was exposed to the atmosphere for several hours before freezing.

Nine samples of ice-cream, taken from different local makers, were sent to the Bacteriological Department of the Liverpool University and the following results were received :—

Coliform bacilli absent in 1 c.c. ....	3
Coliform bacilli present in 1 c.c. but absent in 1/10 c.c. ...	1
Coliform bacilli present in 1/10 c.c. but absent in 1/100 c.c. ...	2
Coliform bacilli present in 1/1000 c.c. ....	3

It was regarded as important to ascertain whether the coliform organisms were of faecal origin and arrangements were made for another bacteriologist to carry out a more detailed analysis of future samples. Fifteen such samples were examined by him and faecal coli were found in four of them.

A printed circular containing the relevant sections of the Food and Drugs Act, 1938, was issued to all persons engaged in the manufacture and sale of foods, and all the premises concerned regularly supervised, particular attention being directed to the sterilisation of utensils and the cleanliness of the employees.

*(c) MEAT—*

The amount of meat condemned as unfit for human consumption comprised: Beef, 1,145 $\frac{1}{4}$  lbs.; bacon, 96 lbs.; tongue, 13 $\frac{1}{2}$  lbs.; ham, 19 $\frac{1}{2}$  lbs.; tinned meat 126 lbs.; tinned tongue, 11 lbs.

There is one licensed slaughterhouse.

*(d) OTHER FOODSTUFFS—*

Other foodstuffs condemned comprised: Fish, 142 tins; vegetables, 190 tins; wet fish, 15 $\frac{1}{2}$  stones; milk, 320 tins; jam, 27 tins; marmalade, 3 tins; fruit, 18 tins; soup, 8 tins; chutney, 1 jar; sauce, 1 bottle; spaghetti, 1 tin; bovril, 1 bottle; cheese, 110 lbs.; processed cheese, 50 lbs.; fat, 2 $\frac{3}{4}$  lbs.; butter, 106 $\frac{1}{4}$  lbs.; margarine, 58 $\frac{1}{4}$  lbs.; tea, 16 lbs.; eggs, 46 dozen; prunes, 25 lbs.; dates, 29 lbs.; raisins, 80 $\frac{1}{2}$  lbs.; chocolate, 21 lbs.; cereals, 32 pkts.; oats, 33 lbs.; flour, 16 lbs.; biscuits, 8 lbs.; macaroni, 4 pkts.

The following samples were analysed by the Liverpool City Analyst :—

Milk	...	...	...	30	Ice-cream	...	...	...	1
Trifle	...	...	...	1	Ice-cream ingredients				7

Two samples of milk were found to be below legal standard. In one case—raw milk—the Analyst reported the presence of slightly added water; in the other—T.T. milk—a deficiency of 10% milk fat. Legal action was taken in the second case, the local Justices imposing a fine.

## HOUSING

*Number of New Houses erected during the year—*

Total	...	...	...	...	...	...	...	...	202
(i) By the local authority—Prefabs	135,	Permanent	4						139
(ii) By other bodies or persons	...	...	...	...					63

*Inspection of Dwellinghouses during the year—*

1. (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	...	...	...	...	1,739
(b) Number of inspections made for the purpose						3,658
2. (a) Number of dwelling-houses (included under sub-head 1 above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932	...	...	...			352
(b) Number of inspections made for the purpose						384



3. Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ..	35
4. Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ... ..	173
<i>Remedy of Defects during the year without Service of Formal Notice—</i>	
Number of defective dwelling-houses rendered fit in consequence of informal action by the local authority or their officers ... ..	431
<i>Action under Statutory Powers during the year—</i>	
(a) Proceedings under Public Health Acts :	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... ..	867
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners ... ..	783
(b) By local authority in default of owners	Nil
(b) Proceedings under Sections 11 and 13 of the Housing Act, 1936 :—	
(1) Number of dwelling-houses in respect of which Demolition Orders were made ...	1
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ..	1
(c) Proceedings under Section 12 of the Housing Act, 1936 :—	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... ..	2
<i>Housing Act, 1936—Part IV—Overcrowding—</i>	
(a) Number of new cases of overcrowding reported during the year ... ..	61
(b) (i) Number of cases of overcrowding relieved during the year ... ..	167
(ii) Number of persons concerned in such cases	572

One area in Pear Street containing 15 houses was officially represented during the year.

# 1. INSPECTIONS FACTORIES ACT, 1937

Premises (1)	M/c line No. (2)	Number on Register (3)	Number of			M/c line No. (7)
			Inspections (4)	Written Notices (5)	Occupiers Prosecuted (6)	
(1) Factories in which Sections 1, 2, 3, 4 and 6 are to be en- forced by Local Authorities	1	74	137	25	—	1
(2) Factories not included in (1) to which Section 7 applies :						
(a) Subject to the Local Authorities (Transfer of Enforcement) Order, 1938	2	52	104	21	—	2
(b) Others ... ..	3	—	—	—	—	3
(3) Other Premises under the Act (excluding out-workers' premises) ... ..	4	—	—	—	—	4
TOTAL ... ..	—	126	241	46	—	—

## 2. CASES IN WHICH DEFECTS WERE FOUND

Particulars (1)	M/c line No. (2)	Number of cases in which defects were found				Number of cases in which prosecutions were instituted (7)	M/c line No. (8)
		Found (3)	Remedied (4)	Referred			
				To H.M. Inspector (5)	By H.M. Inspector (6)		
Want of cleanliness (S.1) ...	5	20	20	—	—	—	5
Overcrowding (S.2) ...	6	—	—	—	—	—	6
Unreasonable temperature (S.3)	7	—	—	—	—	—	7
Inadequate ventilation (S.4) ...	8	—	—	—	—	—	8
Ineffective drainage of floors (S.6.) ...	9	—	—	—	—	—	9
Sanitary Conveniences (S.7) :							
(a) insufficient ...	10	9	9	—	9	—	10
(b) unsuitable or defective	11	16	16	—	—	—	11
(c) not separate for sexes ...	12	1	1	—	1	—	12
Other offences (not including offences relating to Home- work) ...	13	—	—	—	—	—	13
TOTAL ...	60	46	46	—	10	—	60











